

Method for producing monodisperse gel-type ion exchangers

Abstract

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The invention relates to a process for producing monodisperse ion-exchanger gels with a particle size of from 5 to 500 μm , obtainable via

- 10 a) production of a non-crosslinked monodisperse seed polymer with a particle size of from 0.5 to 20 μm via free-radical-initiated polymerization of monoethylenically unsaturated compounds in the presence of a non-aqueous solvent,
- 15 b) addition of an active styrene-containing monomer mixture as feed to this seed polymer, permitting the monomer mixture to penetrate into and swell the seed, and polymerizing the mixture at an elevated temperature, if appropriate with one or more repetitions of the steps of addition of monomer mixture, penetration and swelling, and polymerization, and where during the final
- 20 addition the monomer mixture comprises from 2 to 50% by weight of crosslinking agent, and
- c) functionalization by means of a sulfonating agent to give cation exchangers or via amidomethylation with subsequent hydrolysis to give anion exchangers, or chloromethylation with subsequent amination.